IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Ian Alexander Graham and Thierry Tonon
Application No. 10/564,560
Filed: January 12, 2006
Confirmation No. 9611
For: TRANSGENIC CELLS
Examiner: Not yet assigned
Art Unit: 1645
Attorney Reference No. 7730-72576-01

FILED VIA EFS ON
DECEMBER 13, 2006

REQUEST FOR CORRECTED OFFICIAL FILING RECEIPT

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ALEXANDRIA, VA 22313-1450

Applicants have received the official Filing Receipt for the application referenced above, a copy of which (with requested corrections handwritten thereon) is attached as Exhibit A.

The following errors appear on the Filing Receipt:

1. The number of independent claims should be --**1**--, rather than "2" as typed on the Filing Receipt. A copy of the Preliminary Amendment that was filed with the national stage application, which includes a listing of the claims, is attached as Exhibit B.

2. The Foreign Applications "United States of America 09624670 07/24/2000" and "United States of America 09903456 07/11/2001" as typed on the Filing Receipt are incorrect and should be replaced with --**Great Britain application no. 0316629.5 filed July 16, 2003**--. The correct priority claim is included in the Preliminary Amendment attached as Exhibit B. Also, attached as Exhibit C is a copy of the Combined Declaration and Power of Attorney for Patent Application, which shows the correct priority claim.

Applicants request that the identified errors be corrected and that a new official Filing Receipt be issued.

Please call the undersigned if any further information is required.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

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121 S.W. Salmon Street
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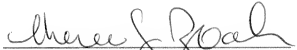
By 
Sheree Lynn Rybak, Ph.D.
Registration No. 47,913

cc: Docketing

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
10/564,560	06/21/2006	1645	1130	5585-72576-01	13	22	~~2~~ 1

CONFIRMATION NO. 9611

FILING RECEIPT

24197
KLARQUIST SPARKMAN, LLP
121 SW SALMON STREET
SUITE 1600
PORTLAND, OR97204

Date Mailed: 12/11/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Ian Alexander Graham, York, UNITED KINGDOM;
Thierry Tonon, Roscoff, FRANCE;

Power of Attorney: The patent practitioners associated with Customer Number 24197

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/GB04/03057 07/13/2004

Foreign Applications

~~UNITED STATES OF AMERICA 09624670 07/24/2000~~ e
~~UNITED STATES OF AMERICA 09903456 07/11/2001~~ e
GREAT BRITAIN 0316629.5 07/16/2003

If Required, Foreign Filing License Granted: 12/07/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/564,560**

Projected Publication Date: 03/15/2007

Non-Publication Request: No

Early Publication Request: No

Title

Transgenic cells

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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Express Mail No. EV629077461US
Date of Deposit: January 12, 2006
Attorney Reference Number 5585-72576-01
Application Number Currently unknown

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Ian Alexander Graham and Thierry Tonon
Application No. Currently unknown
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Examiner: Not yet assigned
Art Unit: Not yet assigned
Attorney Reference No. 5585-72576-01

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PRELIMINARY AMENDMENT

Prior to examination of the above-identified patent application and calculation of the fees, please amend the application as follows to comply with national stage requirements.

Amendments to the Specification are on page 2.

Amendments to the Claims begin on page 7.

Remarks are on page 11.

An **Abstract** is attached as a separate page at the end of this document.

25 pages of **sequence listing** are attached at the end of this document.

Express Mail No. EV629077461US
Date of Deposit: January 12, 2006
Attorney Reference Number 5585-72576-01
Application Number Currently unknown

Amendments to the Specification

On page 1, please insert the following new paragraph beginning at line 2:

--This is the U.S. National Stage of International Application No. PCT/GB2004/003057, filed July 13, 2004 (published in English under PCT Article 21(2)), which in turn claims the benefit of Great Britain Patent Application No. 0316629.5, filed July 16, 2003.--

Please replace the paragraph beginning on line 6 of page 6, with the following re-written paragraph:

--According to an aspect of the invention there is provided a transgenic cell comprising a nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(i) a DNA molecule consisting of a DNA sequence as represented in Figures 1a, 1b or 1c (SEQ ID NO: 1, 2, 3 or 4);

(ii) a DNA molecule which hybridises to the sequences identified in (i) above and which encode a polypeptide which has fatty acid elongase activity; and

(iii) DNA molecules consisting of DNA sequences that are degenerate as a result of the genetic code to the DNA sequence defined in (i) and (ii).--

Please replace the paragraph beginning on line 1 of page 7, with the following re-written paragraph:

-- In a further preferred embodiment of the invention said polypeptide is a variant polypeptide and comprises the amino acid sequence represented in Figure 2a, 2b, or 2c (SEQ ID NO: 5, 6, or 7) which sequence has been modified by deletion, addition or substitution of at least one amino acid residue wherein said modification enhances the enzyme activity of said polypeptide.--

Please replace the paragraphs beginning on line 7 of page 8, with the following re-written paragraphs:

--In a further preferred embodiment of the invention said polypeptide comprises the amino acid sequence represented in Figures 2a, 2b or 2c (SEQ ID NO: 5, 6, or 7). Preferably

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said polypeptide consists of the amino acid sequence represented in Figures 2a, 2b or 2c (SEQ ID NO: 5, 6, or 7).

According to a further aspect of the invention there is provided a vector including at least one nucleic acid molecule wherein said nucleic acid molecule is selected from the group consisting of:

i) a DNA molecule consisting of a DNA sequence as represented in Figures 1a, 1b or 1c (SEQ ID NO: 1, 2, 3 or 4);

ii) a DNA molecule which hybridises to the sequences identified in (i) above and which encode a polypeptide which has fatty acid elongase activity; and

iii) DNA molecules consisting of DNA sequences that are degenerate as a result of the genetic code to the DNA sequence defined in (i) and (ii).--

Please replace the paragraph beginning on line 28 of page 11, with the following re-written paragraph:

-- In a further preferred embodiment of the invention said cell is transfected with a nucleic acid molecules selected from the group comprising nucleic acid sequences selected from the group consisting of:

i) a DNA molecule consisting of the DNA sequence as represented in Figures 1a, 1b or 1c (SEQ ID NO: 1, 2, 3 or 4);

ii) DNA molecules which hybridise to the sequences identified in (i) above and which encode a polypeptide which has fatty acid elongase activity; and

iii) DNA molecules comprising DNA sequences that are degenerate as a result of the genetic code to the DNA sequence defined in (i) and (ii); combined with at least one of the nucleic acid molecules selected from the group consisting of,

iv) DNA molecules consisting of DNA sequences as represented in Figures 3a, 4a, 5a or 6a (SEQ ID NO: 8, 10, 12, or 14);

v) DNA molecules which hybridise to the sequences identified in (iv) above and which have desaturase, acyl-CoA synthetase or diacylglycerol acyltransferase activity;

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vi) DNA molecules comprising DNA sequences that are degenerate as a result of the genetic code to the DNA sequence defined in (iv) and (v) above.--

Please replace the paragraph beginning on line 4 of page 17, with the following re-written paragraph:

--In a further preferred embodiment of the invention said polypeptides are those protein molecules disclosed herein. In particular, protein molecules which comprise the sequences as represented by Figures 2a, 2b, 2c, 3b, 4b, 5b or 6b (SEQ ID NO:5, 6, 7, 9, 11, 13 or 15).--

Please replace the paragraphs beginning on line 1 of page 18, with the following re-written paragraphs:

-- Figure 1a represents the nucleic acid sequence of a nucleic acid molecule comprising a fatty acid elongase TpELO2.1 (SEQ ID NO: 1 and 2); Figure 1b the nucleic acid sequence of the fatty acid elongase TpELO2.2 (SEQ ID NO: 3); Figure 1c the nucleic acid sequence of the fatty acid elongase TpELO2.3 (SEQ ID NO: 4);.

Figure 2a represents the amino acid sequence of TpELO2.1 (SEQ ID NO: 5); Figure 2b represents the amino acid sequence of TpELO2.2; and (SEQ ID NO: 6); Figure [[2b]] 2c represents the amino acid sequence of TpELO2.3 (SEQ ID NO: 7);

Figure 3a represents the nucleic acid sequence of *PIDES1* (SEQ ID NO: 8); Figure 3b represents the amino acid sequence of *PIDES1* (SEQ ID NO: 9);.

Figure 4a represents the nucleic acid sequence of a nucleic acid molecule comprising fatty acid desaturase, *PIDES2* (SEQ ID NO: 10); Figure 4b the amino acid sequence comprising *PIDES2* (SEQ ID NO: 11);

Figure 5a represents the nucleic acid sequence of a nucleic acid molecule comprising acyl-CoA synthetase, *PIACS1* (SEQ ID NO: 12); Figure 5b the amino acid sequence comprising *PIACS1* (SEQ ID NO: 13);

Figure 6a the full length sequence of a nucleic acid molecule encoding *PlDGAT2-1* (SEQ ID NO: 14); Figure 6b the full length amino acid sequence of *PlDGAT2-1* polypeptide (SEQ ID NO: 15); and

Figure 7a is the nucleic acid sequence of PlELO1 (SEQ ID NO: 16); Figure 7b amino acid sequence of PlELO 1 (SEQ ID NO: 17); Figure 7c is the nucleic acid sequence of PlELO 2 (SEQ ID NO: 18); Figure 7d is the amino acid sequence of PlELO 2 (SEQ ID NO: 19).--

Please replace the paragraphs beginning on line 15 of page 24, with the following re-written paragraphs:

-- The sequencing of 5,719 cDNA clones from the *P. lutheri* library also resulted in the identification of four cDNA clones from a single gene which gives a predicted amino acid sequence that has significant identity with fatty acid desaturase genes from a variety of organisms (Figure 3a and 3b; SEQ ID NOS: 8 and 9). This desaturase gene has been designated *PlDES 1*.

The sequencing of 5,719 cDNA clones from the *P. lutheri* library also resulted in the identification of three cDNA clones from a single gene which gives a predicted amino acid sequence that has significant identity with fatty acid desaturase genes from a variety of organisms (Figure 4a and 4b; SEQ ID NOS: 10 and 11). This desaturase gene has been designated *PlDES 2*.

The sequencing of 5,719 cDNA clones from the *P. lutheri* library also resulted in the identification of twelve cDNA clones from a single gene which gives a predicted amino acid sequence that has significant identity with acyl-CoA synthetase genes from a variety of organisms (Figure 5a and 5b; SEQ ID NOS: 12 and 13). This acyl-CoA synthetase gene has been designated *PlACS1*.

The sequencing of 5,719 cDNA clones from the *P. lutheri* library also resulted in the identification of one cDNA clone which gives a predicted amino acid sequence that has significant identity with diacylglycerol acyltransferase 2 genes from several organisms (Figure 6a and 6b; SEQ ID NOS: 14 and 15). This diacylglycerol acyltransferase 2 gene has been designated *PlDGAT2-1*.

The full length cDNA and protein sequence of *PlELO1 and PlELO2* is disclosed in Figures 7a, 7b, 7c and 7d (SEQ ID NOS: 16-19) respectively.--

Please insert the Abstract, submitted herewith on a separate page, as page 33 at the end of the application.

Please replace the previous sequence listing with pages 1-25 of the enclosed sequence listing.

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Amendments to the Claims

1. (Currently amended) A transgenic cell comprising a nucleic acid molecule ~~comprising a nucleic acid sequence~~ selected from the group consisting of:

i) a DNA molecule consisting of a DNA sequence as represented in ~~Figures 1a, 1b or 1c~~ SEQ ID NO: 1, 2, 3, or 4;

ii) a DNA molecule which hybridises to the sequences identified in (i) above and which encode a polypeptide which has fatty acid elongase activity; and

iii) DNA molecules consisting of DNA sequences that are degenerate as a result of the genetic code to the DNA sequence defined in (i) and (ii).

2. (Currently amended) ~~A~~ The cell according to Claim 1 wherein said nucleic acid molecule anneals under stringent hybridisation conditions to the sequences described in (i), (ii) and (iii) above.

3. (Currently amended) ~~A~~ The cell according to Claim 1 ~~or 2~~ wherein said nucleic acid molecules are isolated from an algal species.

4. (Currently amended) ~~A~~ The cell according to Claim 3 wherein said algal species is ~~selected from the group consisting of:~~ *Amphidinium carterae, Amphiphora hyalina, Amphiphora sp., Chaetoceros gracilis, Coscinodiscus sp., Crypthecodinium cohnii, Cryptomonas sp., Cylindrotheca fusiformis, Haslea ostrearia, Isochrysis galbana, Nannochloropsis oculata, Navicula sp., Nitzschia closterium, Pavlova lutheri, Phaeodactylum tricornutum, Prorocentrum minimum, Rhizosolenia setigera, Skeletonema costatum, Skeletonema sp., Tetraselmis tetrathele, Thalassiosira nitzschioides, Thalassiosira heterophorma, Thalassiosira pseudonana,* or *Thalassiosira stellaris.*

5. (Currently amended) ~~A~~ The cell ~~according to any~~ of Claim[[s]] 1[[-4]] wherein said polypeptide is a variant polypeptide and comprises the amino acid sequence ~~represented~~ shown in ~~Figure 2a, 2b, or 2c~~ SEQ ID NO: 5, 6, or 7 which sequence has been modified by deletion,

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addition or substitution of at least one amino acid residue wherein said modification enhances the enzyme activity of said polypeptide.

6. (Currently amended) ~~A~~ The cell according to Claim 5 wherein said modified polypeptide has enhanced fatty acid elongase activity

7. (Currently amended) ~~A~~ The cell according to ~~any of~~ Claim[[s]] 1[[-4]] wherein said polypeptide comprises the amino acid sequence represented in ~~Figures 2a, 2b or 2e~~ SEQ ID NO: 5, 6, or 7.

8. (Currently amended) ~~A~~ The cell according to Claim 7 wherein said polypeptide consists of the amino acid sequence represented in ~~Figures 2a, 2b or 2e~~ SEQ ID NO: 5, 6, or 7.

9. (Currently amended) ~~A~~ The cell according to ~~any of~~ Claim[[s]] 1[[-8]]wherein said cell is transfected with a nucleic acid molecules selected from the group consisting of ~~nucleic acid sequences selected from the group consisting of~~:

i) a DNA molecule consisting of the DNA sequence as represented in ~~Figures 1a, 1b or 1c~~ SEQ ID NO: 1, 2, 3, or 4;

ii) DNA molecules which hybridise to the sequences identified in (i) above and which encode a polypeptide which has fatty acid elongase activity; and

iii) DNA molecules comprising DNA sequences that are degenerate as a result of the genetic code to the DNA sequence defined in (i) and (ii); combined with at least one of the nucleic acid molecules selected from the group consisting of:

iv) DNA molecules consisting of DNA sequences as represented in ~~Figures 3a, 4a, 5a or 6a~~ SEQ ID NO: 8, 10, 12, or 14;

v) DNA molecules which hybridise to the sequences identified in (i) above and which have desaturase, acyl-CoA synthetase or diacylglycerol acyltransferase activity;

vi) DNA molecules comprising DNA sequences that are degenerate as a result of the genetic code to the DNA sequence defined in (iv) and (v) above.

10. (Currently amended) ~~A~~ The cell according to Claim 9 wherein said cell is a plant cell.

11. (Currently amended) A plant comprising ~~a~~ the cell ~~according to any~~ of Claim ~~1-10~~ 9.

12. (Currently amended) A seed comprising ~~a~~ the cell ~~according to any~~ of Claims ~~1-10~~ 9.

13. (Currently amended) A foodstuff product comprising ~~a~~ the cell ~~according to any~~ of Claims ~~1-10~~ 9.

14. (Currently amended) ~~A~~ The foodstuff product ~~according to~~ of Claim 13, wherein said foodstuff is ~~selected from the group consisting of:~~ wine; ~~beer;~~ bread~~,~~; baking products ~~(e.g. bread, cake)~~; or vegetable extracts.

15. (Currently amended) ~~A~~ The food stuff according to Claim 13 wherein said foodstuff is wine or beer.

16. (Currently amended) A fermentation process comprising ~~a~~ the cell ~~according to any~~ of Claims ~~1-10~~ 9.

17. (Currently amended) ~~A~~ The fermentation process ~~according to~~ of Claim 16 ~~said process comprises the steps of~~ comprising:

~~i)~~ providing a vessel containing ~~a~~ the cell ~~according to the invention~~ and constituents required for fermentation and fatty acid biosynthesis; and

~~iii)~~ providing conditions conducive to the fermentation of ~~the~~ a liquid composition contained in said vessel.

18. (Currently amended) An animal feed product comprising ~~a~~ the cell ~~according to any~~ of Claims ~~1-10~~ 9.

19. (Currently amended) A method of modulating the level of n-3 fatty acid in a plant cell comprising;

~~i)~~ providing a plant cell according to Claim 10;

~~iv)~~ regenerating the plant cell into a plant; and

~~v)~~ monitoring n-3 fatty acid production by said plant.

20. (Currently amended) A method for the production and optionally the extraction of n-3 fatty acids comprising:

~~i)~~ providing a cell according to claim 1~~any of Claims 1-10~~;

~~ii)~~ providing conditions conducive to the growth of said cell; and

~~iii)~~ extracting n-3 fatty acids, or variants thereof, from said cell.

21. (Currently amended) A method for the production and optionally the extraction of n-3 fatty acid comprising:

~~i)~~ providing a plant cell according to Claim 10;

~~ii)~~ regenerating said cell into a plant; and

~~iii)~~ extracting n-3 fatty acids, or variants thereof from said plant.

22. (Currently amended) A reaction vessel comprising ~~at least one cell according to the invention~~ the cell of claim 1, fatty acid substrates and co-factors characterised in that said vessel is adapted for the conversion of said fatty acids substrates to n-3 fatty acids.

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REMARKS

Claims 1-22 were pending. No claims were added or cancelled. Therefore, claims 1-22 are still pending.

The claims were amended to remove multiple dependencies, include sequence identifiers, and correct antecedent basis, to comply with U.S. claiming practice.

By this amendment the specification has been updated to reflect prior related applications, to include sequence identifiers, to insert the abstract on a separate page, and to insert the sequence listing.

No new matter has been added by this amendment. In addition, no amendments were made to distinguish prior art.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

By _____
Sheree Lynn Rybak, Ph.D.
Registration No. 47,913

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Portland, Oregon 97204
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COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled TRANSGENIC CELLS, the specification of which

☐ is attached hereto

☒ was filed on 12 January 2006 as United States Patent Application No. 10/564,560.

☒ was described and claimed in PCT International Application No. PCT/GB2004/003057, filed on July 13, 2004, and as amended under PCT Articles 19 on _____ (if applicable).

☐ and was amended on _____ (if applicable).

☐ with amendments through _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56. If this is a continuation-in-part application filed under the conditions specified in 35 U.S.C. § 120 which discloses claims and subject matter in addition to that disclosed in the prior copending application, I further acknowledge the duty to disclose material information as defined in 37 C.F.R. § 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the applications(s) on which priority is claimed:

Number	Country	Day/Month/Year Filed	Claim Priority?	
			☒ Yes	☐ No
0316629.5	Great Britain	16 July 2003		

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

Application Number	Filing Date

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or § 365(c) of any PCT international application(s) designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application Number	Filing Date	Status: patented, pending, abandoned

I hereby appoint the practitioners associated with the customer number provided below to prosecute this application, to file a corresponding international application, and to transact all business in the Patent and Trademark Office connected therewith:

Customer Number 24197

I hereby grant the law firm of Klarquist Sparkman, LLP, the power to insert on this Combined Declaration and Power of Attorney any further information which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for submitting this document.

Address all telephone calls to Sheree Lynn Rybak, Ph.D. at telephone number (503) 226-7391.

Address all correspondence to the address associated with **Customer Number 24197**, which address is:

Klarquist Sparkman, LLP
121 S.W. Salmon Street, Suite 1600
Portland, OR 97204

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of First or Sole Inventor: Ian Alexander Graham

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Citizenship: Great Britain

Inventor's Signature _____ **Date** 17/2/06

Name of Second Inventor:	Thierry Tonon	
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Inventor's Signature		Date 17-2-06